Safety is No Accident

March 1996

Electrical Safety Fair set for April

A publication of NASA's Johnson Space Center for Employees' Safety and Health

New asbestos regulations require labels

By Sean Keprta

New OSHA standards for asbestos are prompting the JSC Health, Safety and Environmental Compliance Office to place warning labels on outside doors of all buildings at JSC that contain asbestos materials.

Labels also will be placed on doors of mechanical rooms containing installed asbestos-containing materials and in areas where easily crumbled asbestos containing materials are exposed.

"The revised standards have new requirements for worker exposure, work practices, training, medical surveillance and supervision," said Steve Hulka, senior industrial hygienist for Kelsey Seybold in the Environmental Health Office. A recently formed working group is interpreting how the new OSHA requirements apply to JSC and beginning the implementation process.

As stated in the labels, although the building may contain many different types of asbestos containing materials, they are not hazardous unless improperly disturbed. Because it is not feasible or recommended to remove all the asbestos-containing materials in JSC facilities, the center is currently managing these materials in place. "This involves periodic inspections, ambient and personnel air monitoring, good work practices and training," Hulka said. By having an aggressive operations and maintenance program, JSC can manage its asbestos-containing building materials and keep its employees safe and well informed.

For additional information on asbestos at JSC, call the asbestos program manager at x33120. For information or registration regarding Safety Learning Center courses for employees that perform asbestos-related activities to achieve compliance with the new requirements, call x36369.

JSC Photo by Karen Schmidt

One of the safety hazards tram drivers report is that cars on Avenue D are making left turns onto Second Street from the right hand lane. Signs indicate only vehicles in the left lane may turn left. Cars turning illegally pose a hazard to trams crossing Second Street to return to Space Center Houston.

Falling objects spark study

Committee looking into variety of safety hazards

The rupture of a 1000-watt metal halide lamp, shattering glass over the air bearing floor of Bldg. 9, and a similar incident where a bulb came loose and shattered on the floor are prompting a study into the causes of such incidents.

The group, chaired by the Environmental Service Office's Trudy Papler, includes members who have experienced similar problems. Papler said the most likely reason for the rupture of the halide lamp was failure to cycle off the lamp for at least 15 minutes per week. The manufacturers of HID lamps recommend recycling any lights intended for continuous illumination.

The center has approximately 700 of these uncovered hi-bay light fixtures. Initial analysis of the bulb failures shows the cause is age. Many lighting installations at JSC have operated for more than 20 years, and maintenance is performed only when requested. Procedures are being developed to decrease the risk of unanticipated bulb failures.

The group also is investigating falling objects or debris that have fallen through holes or cut holes in roofs or overhead crawl spaces. The crawl space below the roof serves as the return air duct for most air conditioning systems on site. It is only separated from the occupied area below it by suspended cellulose ceiling tiles. Vent holes in the ceiling tiles can allow various materials to drop onto people or equipment below.

"To help avoid accidents, work should not be performed above occupied areas," Papler said. "Every effort should be taken to schedule such activities during off-peak times, preferably weekends, and work must be cleared through facility managers. This allows for performance of abatement and cleanup procedures without impact to normal conditions."

The committee also is concerned about objects that have been improperly installed or stored in high places. Late last year in Bldg. 210, a cabinet that fell away from its wall mountings prompted a review of similar installations. The objective of the falling objects committee is to find solutions that minimize overall risk within reasonable costs.

"One important solution to these problems is employee involvement," Papler said. "Employees should try to be aware of what is going on in areas above their individual work spaces. If a situation appears to be unsafe in any way, alert that building's facility manager to take the proper measures to correct the situation."

Quick stops pose problems for tram safety

Space Center Houston is asking for help from JSC personnel and visitors. Pedestrians entering the crosswalks too quickly and drivers cutting in front of the trams are creating a problem for the drivers.

One of the most familiar sights at JSC is that of Space Center Houston trams daily criss-crossing the streets. Drivers don't like to follow the trams because of their slow speeds. Pedestrians, however, view the slow speeds as an indication that there is plenty of time to make it across the street before the trams overtake them.

"When people suddenly dart in front of the trams on foot or in cars, the potential of harm to passengers on board the trams is increased," said Tracy Fergurson of JSC's Health, Safety and Environmental Compliance Office.

The tram drivers are trained to anticipate pedestrian traffic in the crosswalks and will automatically slow down when they see a person approaching by gently applying the brakes. However, if an individual steps out suddenly into a crosswalk, or worse, into an unmarked portion of the street, the normal tram driver reaction is to apply the brakes quickly. Applying the brakes suddenly to a 19,200 pound tram creates a great deal of forward thrust, even while only traveling the normal speed of 10-12 MPH. When the tram drivers apply the brakes suddenly, the passengers—especially small children—tend to lunge forward, and injuries may occur.

"The most common injuries result from small children hitting their heads on the seats in front of them," said Pam Olson, safety supervisor for Space Center Houston.

"In one incident, the tram driver noticed a pedestrian waiting to cross the street in a non-crossing zone," Olson said. "The driver paused the tram and indicated to the pedestrian to proceed. After pausing several seconds, the driver started up and the pedestrian stepped out into the street simultaneously. The driver hit the brakes, causing an abrupt stop to prevent hitting the pedestrian. A 3-year-old child seated in the third car slid forward, biting her tongue, causing severe bleeding."

Automobiles can cause as many problems as pedestrians to the trams. Pulling out quickly or cutting in front of the tram, as well as stopping short, also will cause the tram drivers to apply the brakes quickly. "Three of our tram drivers have reported cars making a left hand turn from the right hand lane from Avenue D onto Second Street." said Olson. "The tram is in the left lane going straight across into Rocket Park. The right lane is posted "right turn only."

The employees at Space Center Houston are urging extra courtesy to the trams and their passengers. Cross on-site streets in marked crosswalks only, and think twice before jumping in front of a Space Center Houston tram.

Employee volunteers on rodeo safety team

By Rindy Carmichael

When the Houston Livestock Show and Rodeo gears up each year, who does it call on to make sure the event is a safe one? For the last two years, coordinators have called a JSC safety expert.

Tom Sullinger, a Hernandez Engineering instructor for the NASA Safety Training Center, recently volunteered his spare time to the Houston Livestock Show and Rodeo. "I saw a need with the HLSR and knew they had to have a smooth safety team in place. I wanted to be a part of that team," Sullinger said.

Sullinger

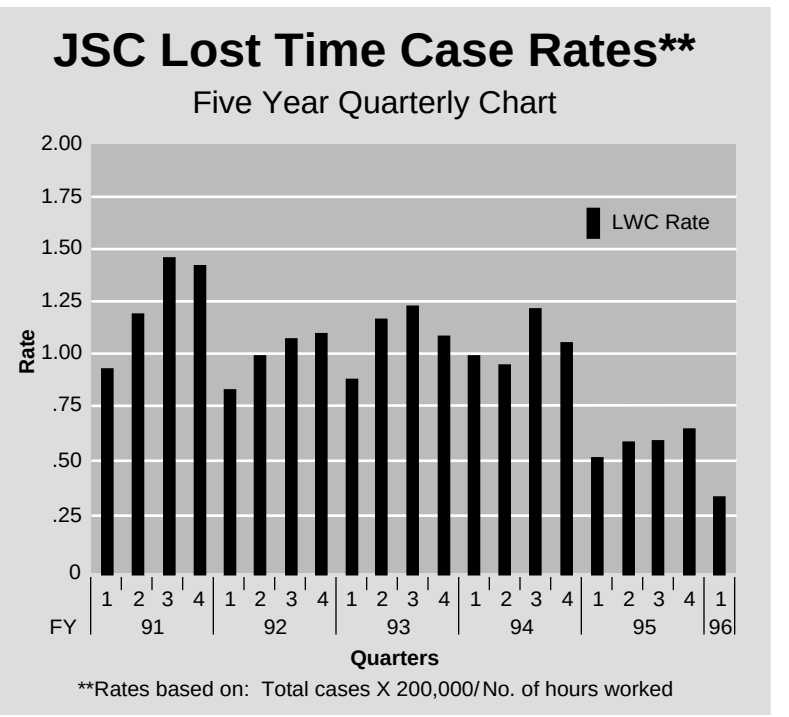
A 20-year veteran safety engineer and a certified safety professional, Sullinger has served 10 years as an EMT, volunteering six of those years on ambulance duty. He also has volunteered in various outside safety committees for the past 10 years, the last two with the Houston Livestock Show and Rodeo. He has served on two of the four HLSR committee divisions—general safety and communications; the other two being medical team and investigations. "We had a total of 450 volunteer members on the safety committee for the 1996 HLSR season," Sullinger said. "Each volunteer is required to work at least four eight-hour shifts. Some volunteers come in from as far away as Utah. They arrived on Friday to work 16-hour shifts on Saturday and Sunday, returning home on Monday and paying their own expenses."

At any given time there may be over 100,000 people on the rodeo grounds. When compared with the 35-40 emergency volunteers working per shift to handle any medical problems that could arise, the numbers show an impressive safety program with well-trained medical emergency personnel.

Sullinger compared JSC's safety program to the excellent HLSR program. "Everything is behind the scenes. Similar to the HLSR, JSC has trained, knowledgeable, and experienced safety personnel who are ready to assist in an emergency. People don't generally understand the real coordination and combined effort that has been developed to take care of an emergency situation. We have a quality program that works."

Of the estimated 1 million people who attended the rodeo this year, there were only two fatalities. One was a six-year-old terminally ill boy with a congenital heart problem. His family was aware of his potential death and fulfilled his dream of seeing the animals at the livestock show. The child passed away during that outing. "In a case like this, no amount of medical emergency treatment can help," commented Sullinger. "It was just his time to go."

"You never know how many people you save," he went on, "but you never forget the ones you lose."



STRIKING IMPROVEMENT—Now that the first figures for 1996 are in, the number of lost workday incidents at JSC continues to show improvement. The Lost Workday Case rate is based on the number of lost work day incidents per number of hours worked by 100 employees in a year. By keeping up current standards and improving safety awareness employees can continue to drive the lost workday case rate closer to zero.